

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Entry of this Amendment is proper under 37 C.F.R. § 1.116 since this Amendment: (a) places the application in condition for allowance for reasons discussed herein; (b) does not raise any new issue regarding further search and/or consideration since the Amendment amplifies issues previously discussed throughout prosecution; (c) does not present any additional claims without canceling a corresponding number of finally-rejected claims; and (d) places the application in better form for appeal, should an appeal be necessary. The Amendment is necessary because it is made in reply to newly cited references and arguments raised in the final rejection. Entry of the Amendment is thus respectfully requested.

By the foregoing amendment, claims 1, 5 and 7 have been amended. Support of the amendments may be found in the specification as filed, at, for example, Fig. 5 and the description thereof. No new matter has been added. Claim 9 has been previously canceled without prejudice or disclaimer for filing in a continuation application. Thus, claims 1-8 are currently pending in the application and subject to examination.

In the outstanding Office Action, claims 1-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Krymski et al. (U.S. Patent No. 6,809,766, hereinafter, "Krymski"). It is noted that claims 1, 5 and 7 have been amended. To the extent that the rejection remains applicable to the claims currently pending, the Applicants hereby traverse the rejection, as follows.

In making this rejection, the Office Action interprets the frame period of Krymski as the integration/shutter width of 3 or 4. See, Office Action, page 3, lines 4-6.

However, in the Applicants' invention as recited in independent claims 1, 5 and 7, as amended, a frame period is defined as a period from start to end of all necessary process for capturing one frame picture. Specifically, in independent claims 1, 5 and 7, as amended, a frame period is defined as "a period between adjacent selections of a firstly selected row selection line".

In the Applicants' invention as recited in independent claims 1 and 5, as amended, the first and second frame periods correspond to a period between adjacent selections of a firstly selected row selection line, and the second frame period is longer than both the first frame period and the vertical scan period.

Thus, by the Applicants' invention as recited in independent claims 1 and 5, the vertical scan circuit sequentially selects and scans the plurality of row select lines within a first vertical scan period when the image sensor is controlled to a first frame period, and also sequentially selects and scans the plurality of row select lines within the first vertical scan period even when the image sensor is controlled to a second frame period, which is longer than the first frame period.

In Krymski, the shutter pointer 200 is scanned within a frame period and the read pointer 300 is scanned with the same speed as the shutter pointer 200, but is delayed from the shutter speed. The delay corresponds to an integration period, which is 3 or 4 in the embodiments of Krymski. Thus, in Krymski, the frame period is always constant, unlike the claimed invention, in which the second frame period is longer than the first frame period.

Further, in Krymski, the time length of the frame period and the time length of the vertical scan period are the same, unlike the claimed invention, in which the second frame period is longer than the vertical scan period.

Therefore, Krymski fails to disclose or suggest at least the features of said vertical scan circuit sequentially selects and scans said plurality of row select lines within a first vertical scan period when said image sensor is controlled to a first frame period, and also sequentially selects and scans said plurality of row select lines within said first vertical scan period even when said image sensor is controlled to a second frame period, which is longer than said first frame period, said first and second frame periods being a period between adjacent selections of a firstly selected row selection line, and said second frame period being longer than said first vertical scan period, as recited in independent claims 1 and 5, as amended.

For at least this reason, the Applicants submit that independent claims 1 and 5, as amended, are allowable over the applied art of record. As amended claims 1 and 5 are allowable, the Applicants submit that claims 2-4 and 6, which depend from allowable claims 1 and 5, respectively, are likewise allowable for at least the reasons set forth above with respect to amended claims 1 and 5.

In the Applicants' invention as recited in independent claim 7, as amended, the frame period corresponds to a period between adjacent selections of a firstly selected row selection line, and the frame period is longer than the vertical scan period.

As noted above with respect to claims 1 and 5, in Krymski, the time length of the frame period and the time length of the vertical scan period are the same. Thus,

Krymski fails to disclose or suggest at least the feature of the frame period being longer than said first vertical scan period, as recited in independent claim 7, as amended.

For at least this reason, the Applicants submit that independent claim 7, as amended, is allowable over the applied art of record. As amended claim 7 is allowable, the Applicants submit that claim 8, which depends from allowable claim 7, is likewise allowable for at least the reasons set forth above with respect to amended claim 7.

Conclusion

For all of the above reasons, it is respectfully submitted that the claims now pending patentability distinguish the present invention from the cited references. Accordingly, reconsideration and withdrawal of the outstanding rejections and an issuance of a Notice of Allowance are earnestly solicited.


Should the Examiner determine that any further action is necessary to place this application into better form, the Examiner is invited to contact the undersigned representative at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of time. The Commissioner is hereby authorized to charge any fee deficiency or credit any overpayment associated with this

communication to Deposit Account No. 01-2300 referencing client matter number
108066-00090.

Respectfully submitted,

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Enclosures: Petition for Extension of Time